

ABSTRACT

A polycrystalline silicon substrate for a solar cell formed by growing a high purity polycrystalline silicon layer on a surface of a base obtained by
5 slicing a polycrystalline silicon ingot obtained by melting metallurgical grade silicon and performing one-direction solidification, wherein one-direction solidification is performed on a melt prepared by adding B to molten metallurgical grade silicon at an
10 amount of $2 \times 10^{18} \text{ cm}^{-3}$ to $5 \times 10^{19} \text{ cm}^{-3}$ based on the concentration in the melt to produce the polycrystalline silicon ingot. With this structure, it is possible to easily obtain a polycrystalline silicon substrate having resistivity and the type of
15 conductivity suitable for manufacture of a solar cell.